

ENGINEERING EXHIBIT

“Maximization” Application for Post-Transition Digital Television Station Construction Permit

prepared for

KZJL License LLC
KZJL-DT Houston, TX
Facility ID 69531
Ch. 44 1000 kW 579 m

KZJL License LLC (“KZJL”) is the licensee of television station KZJL(TV), analog Channel 61 and digital Channel 44, Houston, TX. A license application is pending to cover construction of the KZJL-DT Channel 44 facility (BLCDT-20060524AEC), having an effective radiated power (“ERP”) of 1000 kW at 461 meters antenna height above average terrain (“HAAT”), with a side-mounted directional antenna. KZJL-DT will remain on its current digital Channel 44 for the post-transition period, as established in Appendix B of the Seventh Report and Order in MB Docket 87-278. The Appendix B parameters are the same as the currently authorized operation (1000 kW and 461 meters). *KZJL* herein seeks a Construction Permit to expand the KZJL-DT post-transition Channel 44 digital facility to 1000 kW ERP and 579 meters antenna HAAT. The instant application is intended to be filed by June 20, 2008 in response to the FCC’s lifting of the August 3, 2004 “freeze” concerning expansion in service area.¹

The proposed KZJL-DT Channel 44 antenna system, an ERI directional model ATW22H4-ESC170-44H, will be top-mounted in place of the existing analog Channel 61 antenna on the tower structure. Elliptical polarization is proposed (20 percent vertical polarization). The maximum horizontally polarized ERP is 1000 kW and the maximum vertically polarized ERP is 200 kW. The vertically polarized component will not exceed the horizontally polarized component at any azimuth.

The directional antenna’s azimuthal patterns are depicted in **Figures 1** and **1A** for horizontal and vertical polarization, respectively. **Figures 2** and **2A** provide the theoretical elevation pattern for

¹Public Notice “*Commission Lifts the Freeze On the Filing of Maximization Applications and Petitions for Digital Channel Substitutions, Effective Immediately*” DA 08-1213, released May 30, 2008.

horizontal polarization, and the vertical polarization elevation pattern is provided in **Figures 3** and **3A**.²

The antenna will be installed on the existing KZJL-DT shared antenna supporting structure (FCC Antenna Structure Registration number 1059622). No change to the overall structure height will result from this proposal.

A map is supplied as **Figure 3**, which depicts the standard predicted coverage contours. This map includes the boundaries of Houston, KZJL-DT’s principal community. As demonstrated thereon, the proposed facility complies with §73.625(a)(1), as the entire principal community will be encompassed by the 48 dBμ contour.

The proposed KZJL-DT facility’s predicted service population provides a 101.2 percent match of the Appendix B facility, as detailed in the following table.

Post-Transition Population Summary		
Population Summary (2000 Census) OET Bulletin 69 method	Appendix B	Proposed
Within Noise Limited Contour	4,777,878	4,833,385
Not affected by terrain losses	4,777,831	4,833,329
Lost to all interference	66	312
Net DTV Service	4,777,765	4,833,017
Match of Appendix B	---	101.16%

A detailed interference study per OET Bulletin 69³ shows that the proposal complies with the 0.5 percent limit of new interference caused to the Appendix B facilities and current post-transition authorizations of pertinent nearby stations. The interference study output report is provided as **Table 1**. Protection requirements towards authorized Class A stations are also satisfied.

² These patterns are supplied in terms of relative field. In recent years, FCC Staff have not required pattern data in dBk format however such patterns are available upon request.

³FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A standard cell size of 2 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission’s implementation of OET-69 show excellent correlation.

The proposed 1000 kW ERP exceeds the maximum allowed for the proposed antenna HAAT of 579 meters currently permitted by §73.622(f)(8)(i). Section 73.622(f)(5) permits the maximum ERP to be exceeded in order to provide the same geographic coverage area as the largest station within the same market. The total area within the proposed KZJL-DT 41 dB μ contour is 38,863 square kilometers, which does not exceed the 45,195 square kilometers within the licensed contour area associated with station KPRC-DT (Ch. 35, 1000 kW at 585 m, Houston, TX). KPRC-DT's licensed facility is identical to its Appendix B facility for post-transition operation. A coverage contour comparison map is provided as **Figure 5**. Thus, the ERP specified herein is in compliance with §73.622(f)(5) of the Commission's Rules.

The nearest FCC monitoring station is 331 km distant at Kingsville, TX. This exceeds the threshold minimum distances specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no authorized AM stations within 3.2 kilometers of the site, based on information contained within the Commission's database. The site location is beyond the border areas requiring international coordination.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

The proposed transmitting antenna's installation will replace an existing top-mount antenna and involve no change in overall tower height. Thus, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Based on OET-65 equation (10), and considering 15 percent antenna relative field in downward elevations (pattern data shows less than 15 percent relative field at angles 10 to 90 degrees below the antenna), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 2.8 $\mu\text{W}/\text{cm}^2$, which is 0.6 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding

sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

Certification

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.

Joseph M. Davis, P.E.
June 12, 2008

Chesapeake RF Consultants, LLC
11993 Kahns Road
Manassas, VA 20112
703-650-9600

List of Attachments

Figure 1,1A Antenna Horizontal Plane Pattern
Figure 2, 2A Antenna Elevation Pattern - Horizontal Polarization
Figure 3, 3A Antenna Elevation Pattern - Vertical Polarization
Figure 4 Proposed Coverage Contours
Figure 5 Coverage Contour Comparison
Table 1 OET Bulletin 69 Interference Study
Form 301 Saved Version of Engineering Sections from FCC Form at Time of Upload

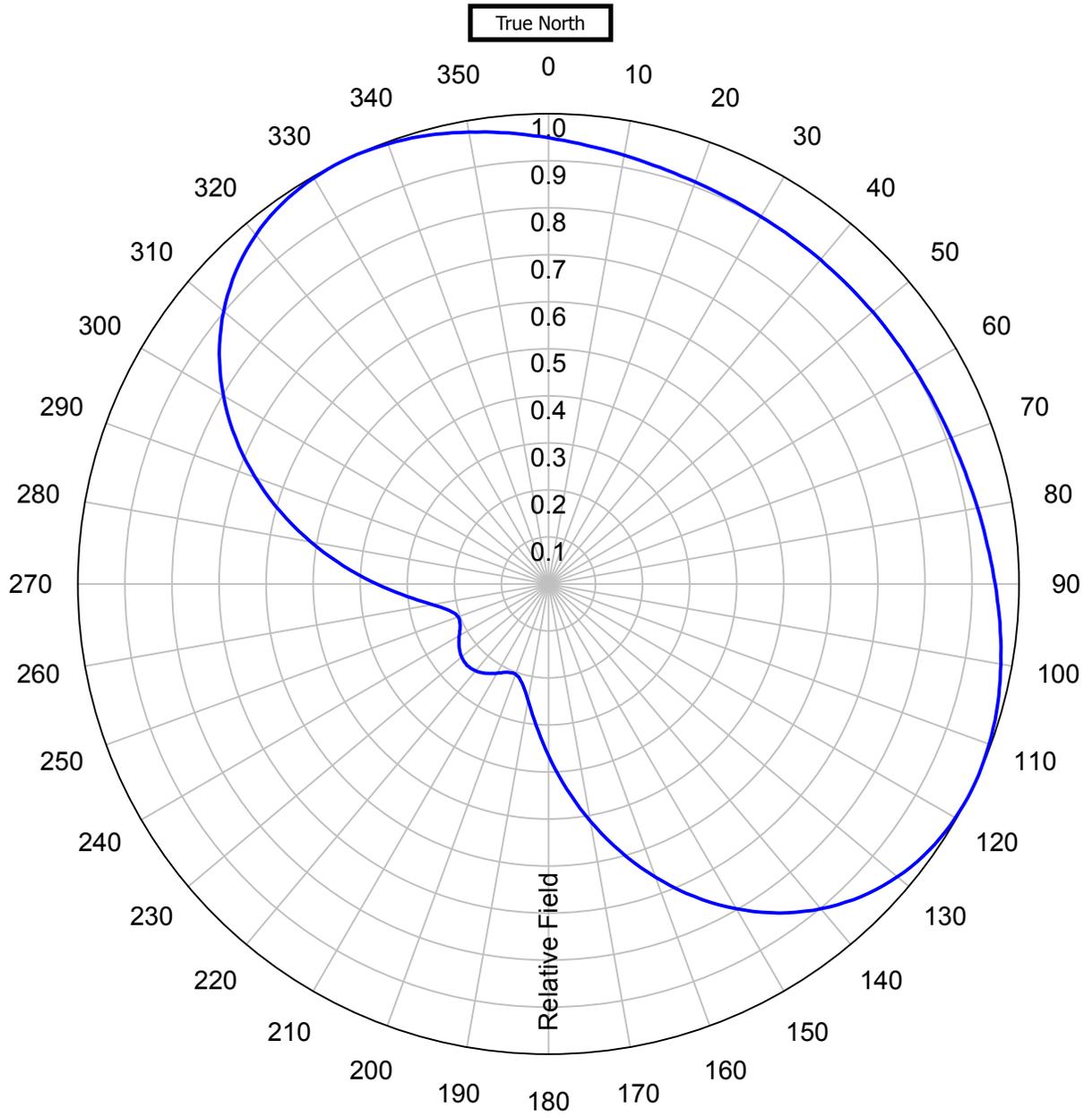
This material was entered June 12, 2008 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.

Figure 1
Antenna Azimuth Pattern
Horizontal Polarization

AZIMUTH PATTERN

Type: ATW-C170
Numeric 1.70 dBd 2.30
Directivity:
Peak(s) at:

Channel: 44
Location:
Polarization: Horizontal
Note: Pattern shape and directivity may vary with channel and mouting configuration.



Preliminary, subject to final design and review.

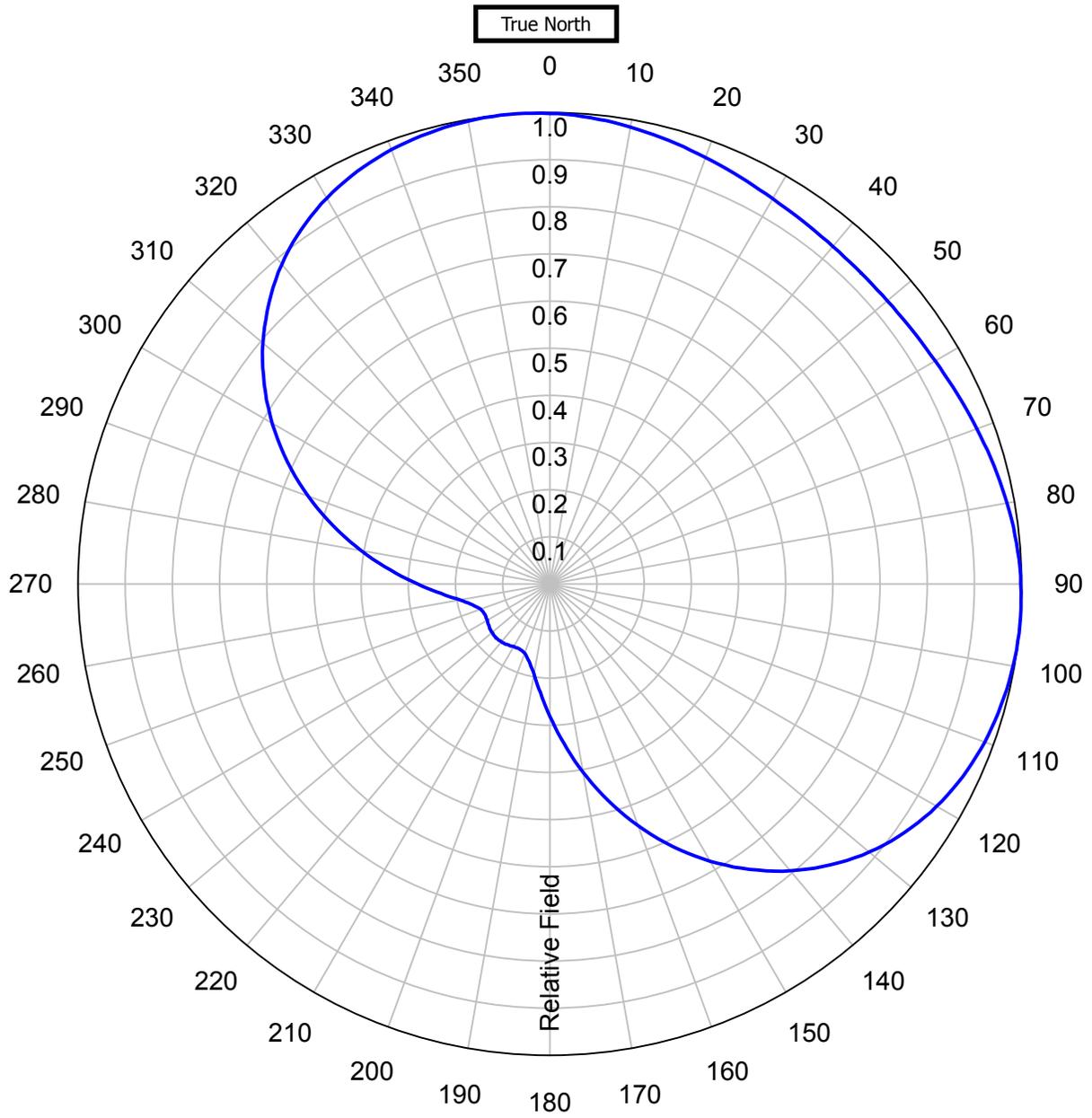


Figure 1A
Antenna Azimuth Pattern
Vertical Polarization

AZIMUTH PATTERN

Type: ATW-V8
Numeric 1.80 dBd 2.55
Directivity:
Peak(s) at:

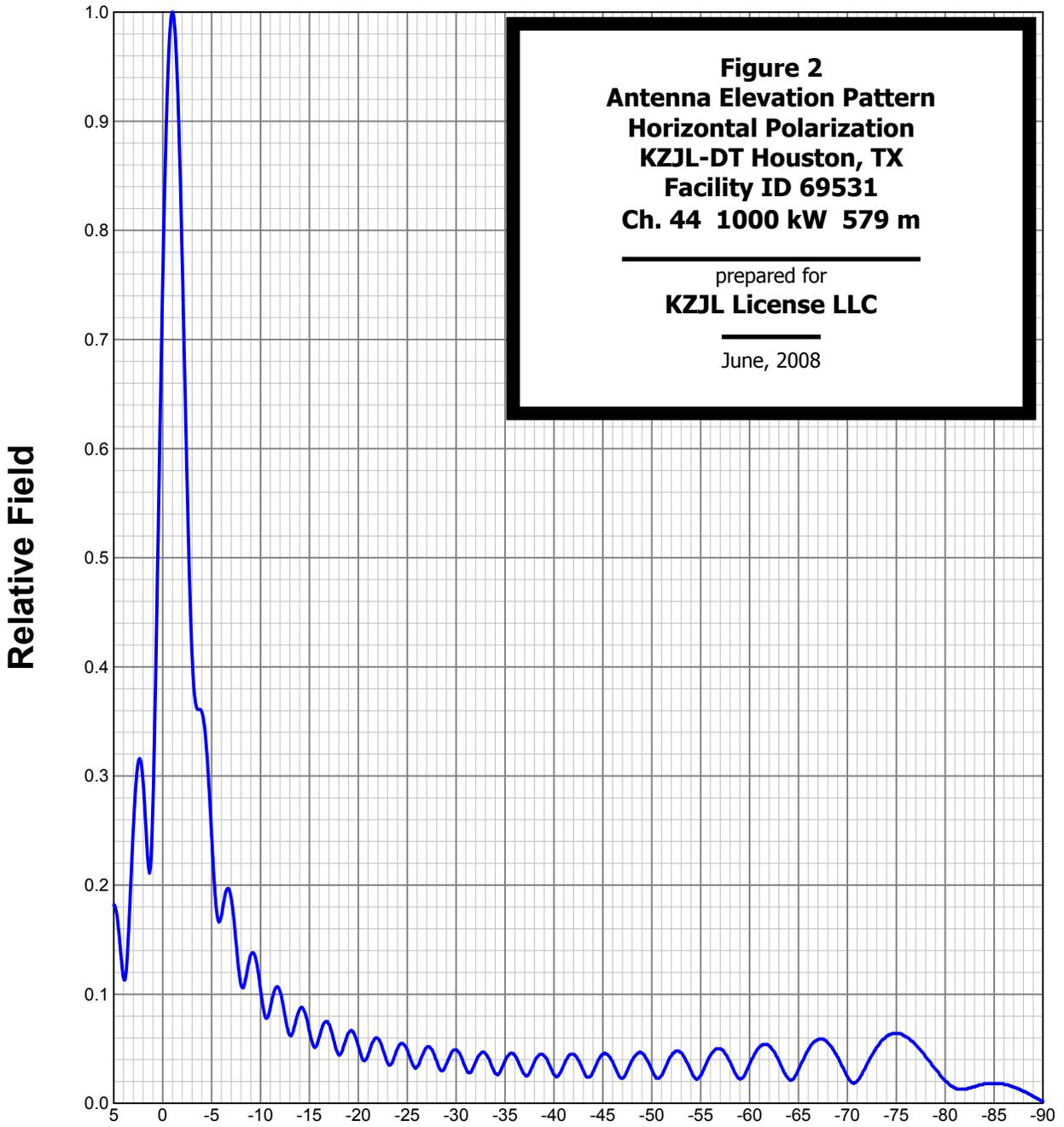
Channel: 44
Location:
Polarization: Vertical
Note: Pattern shape and directivity may vary with channel and mouting configuration.



Preliminary, subject to final design and review.

ELEVATION PATTERN

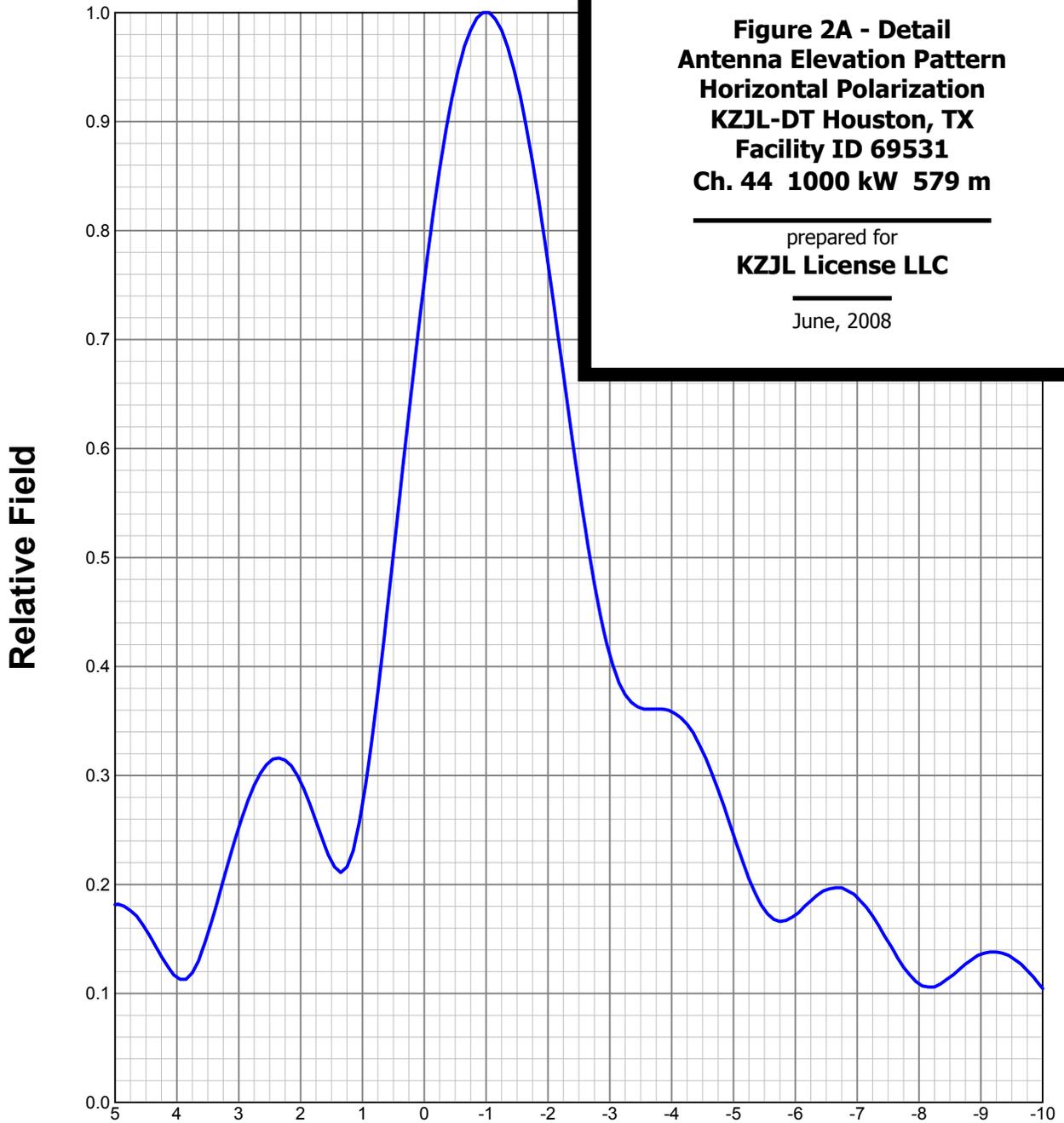
Type:	ATW22H4H		Channel:	44
Directivity:	Numeric	dBd	Location:	
Main Lobe:	22.00	13.42	Beam Tilt:	-1.00
Horizontal:	12.47	10.96	Polarization:	Horizontal



Preliminary, subject to final design and review.

ELEVATION PATTERN

Type:	ATW22H4H		Channel:	44
Directivity:	Numeric	dBd	Location:	
Main Lobe:	22.00	13.42	Beam Tilt:	-1.00
Horizontal:	12.47	10.96	Polarization:	Horizontal



**Figure 2A - Detail
Antenna Elevation Pattern
Horizontal Polarization
KZJL-DT Houston, TX
Facility ID 69531
Ch. 44 1000 kW 579 m**

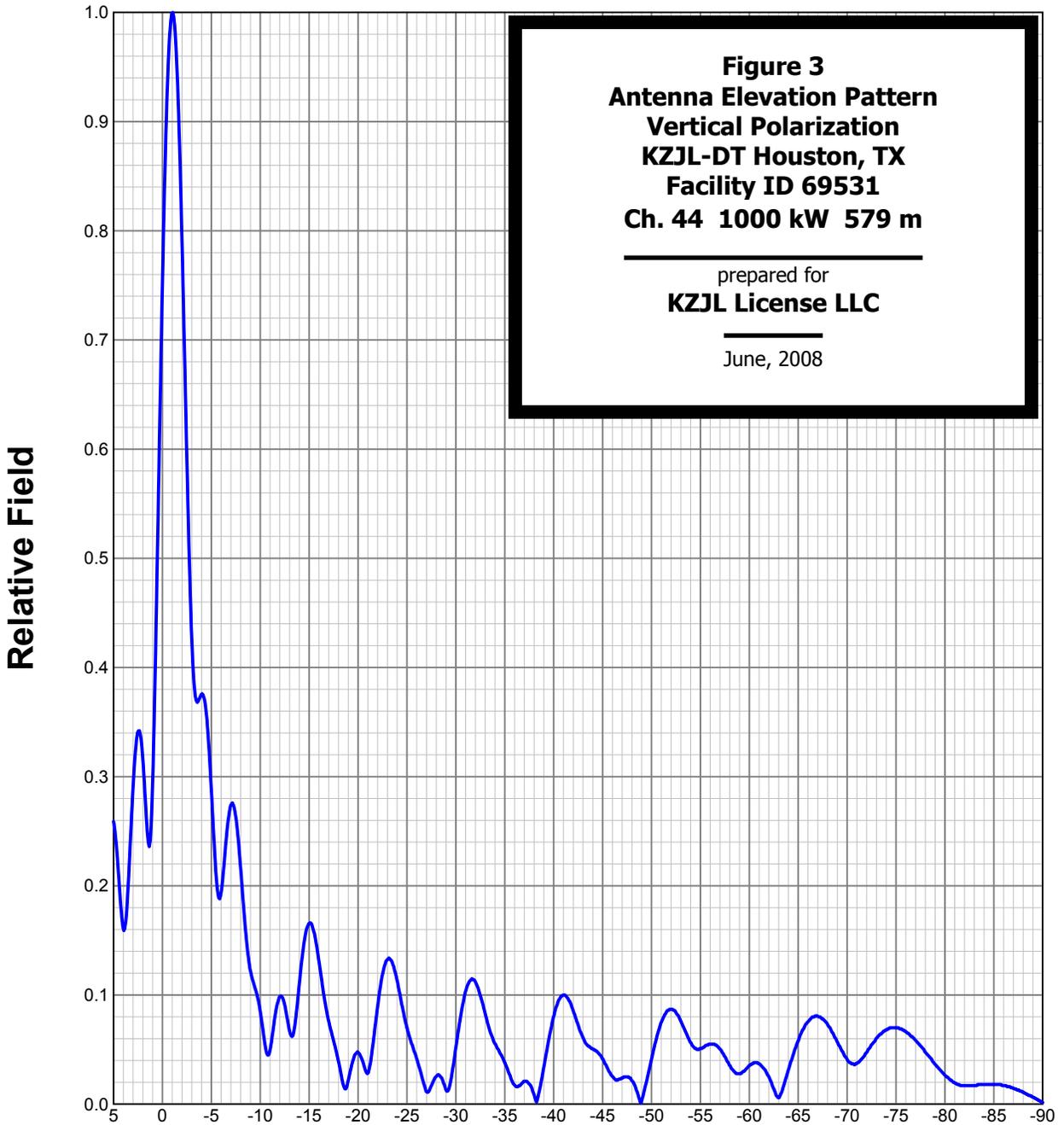
prepared for
KZJL License LLC

June, 2008

Preliminary, subject to final design and review.

ELEVATION PATTERN

Type:	ATW19H4V		Channel:	44
Directivity:	Numeric	dBd	Location:	
Main Lobe:	19.00	12.79	Beam Tilt:	-1.00
Horizontal:	10.74	10.31	Polarization:	Vertical

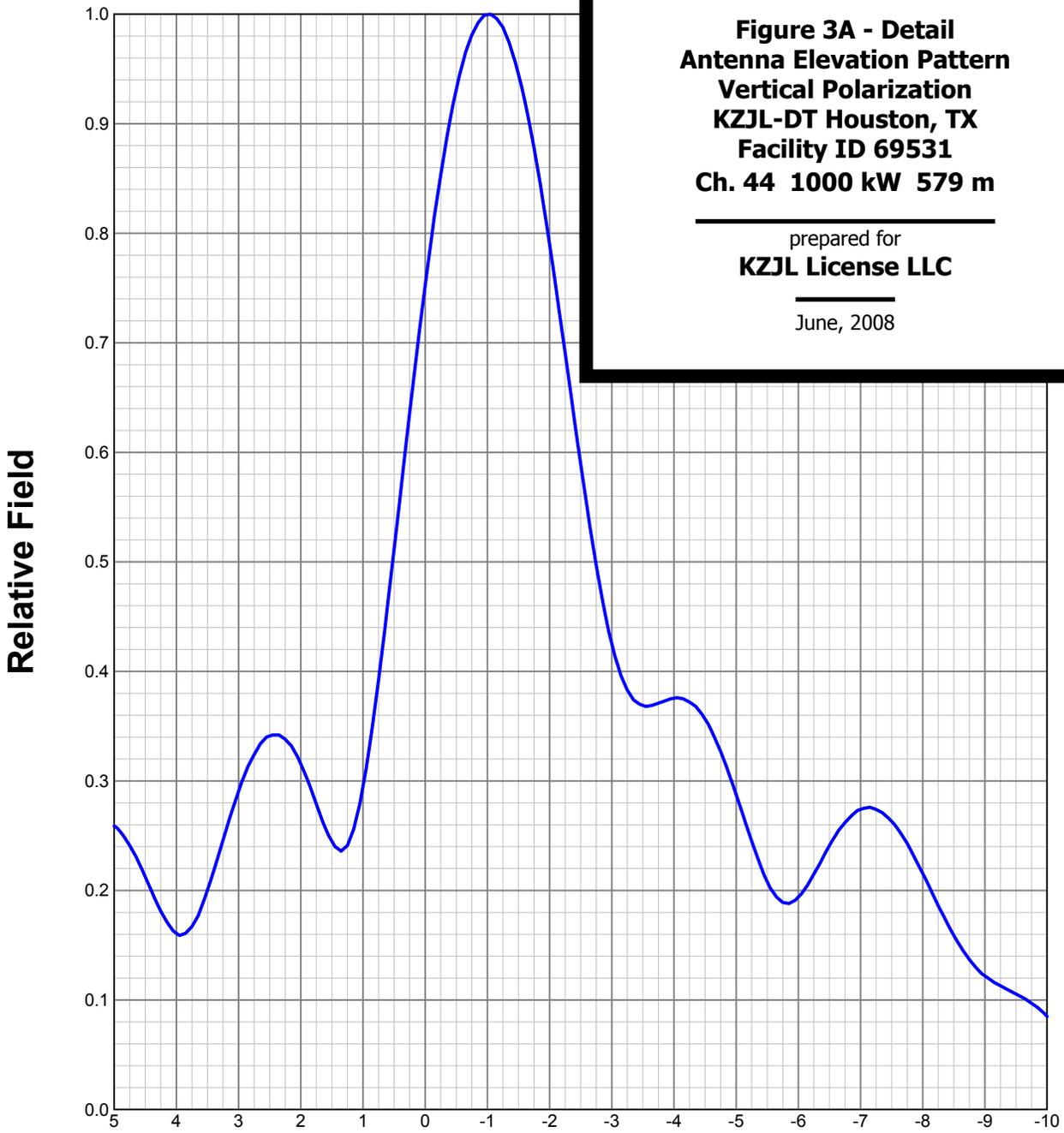


Preliminary, subject to final design and review.



ELEVATION PATTERN

Type:	ATW19H4V		Channel:	44
Directivity:	Numeric	dBd	Location:	
Main Lobe:	19.00	12.79	Beam Tilt:	-1.00
Horizontal:	10.74	10.31	Polarization:	Vertical



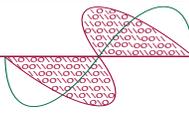
**Figure 3A - Detail
Antenna Elevation Pattern
Vertical Polarization
KZJL-DT Houston, TX
Facility ID 69531
Ch. 44 1000 kW 579 m**

prepared for
KZJL License LLC

June, 2008

Preliminary, subject to final design and review.



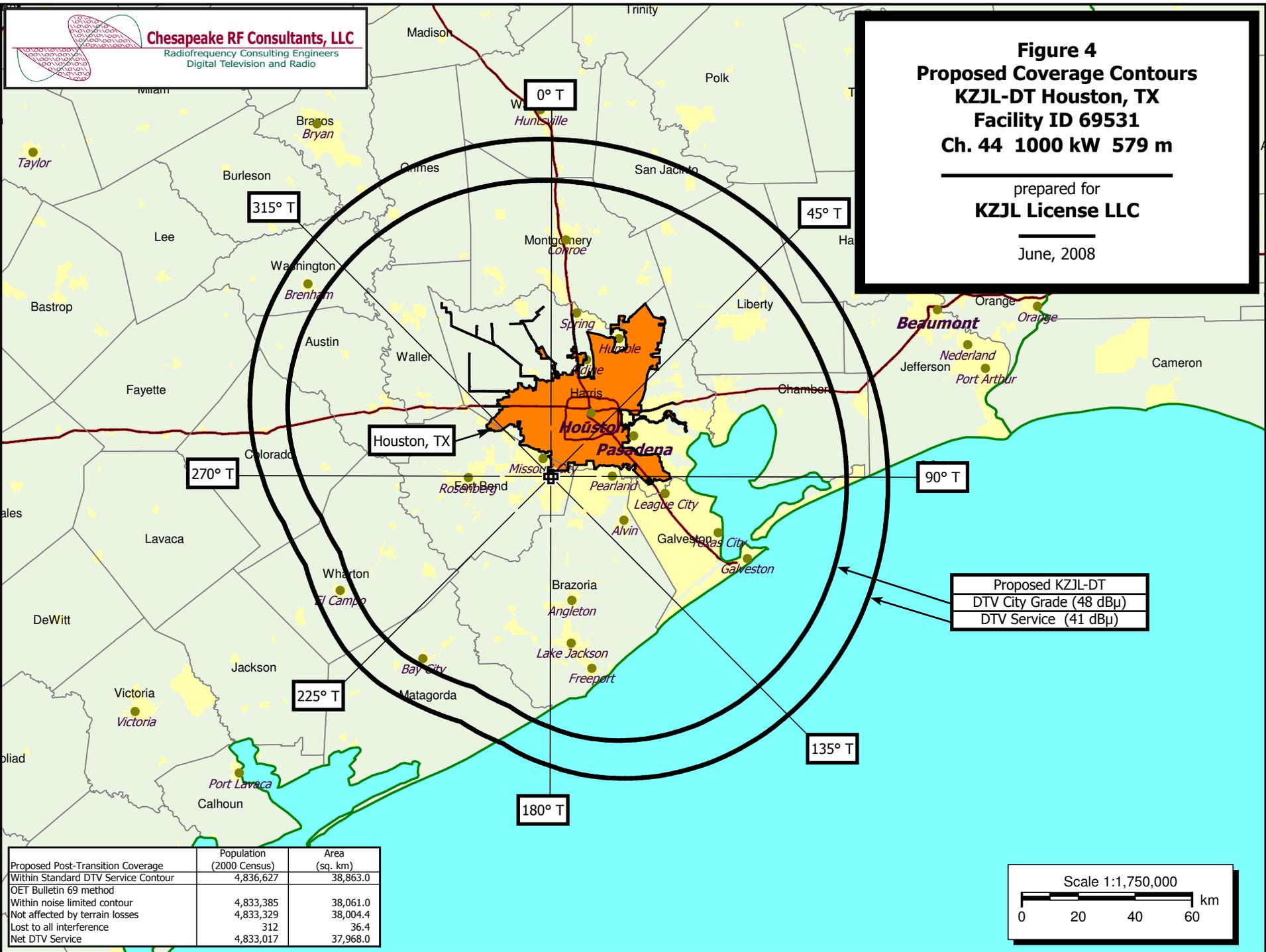


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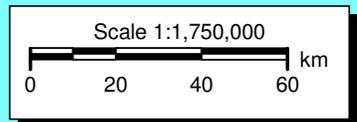
Figure 4
Proposed Coverage Contours
KZJL-DT Houston, TX
Facility ID 69531
Ch. 44 1000 kW 579 m

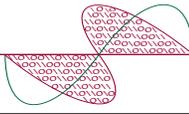
prepared for
KZJL License LLC

June, 2008



Proposed Post-Transition Coverage	Population (2000 Census)	Area (sq. km)
Within Standard DTV Service Contour	4,836,627	38,863.0
OET Bulletin 69 method		
Within noise limited contour	4,833,385	38,061.0
Not affected by terrain losses	4,833,329	38,004.4
Lost to all interference	312	36.4
Net DTV Service	4,833,017	37,968.0

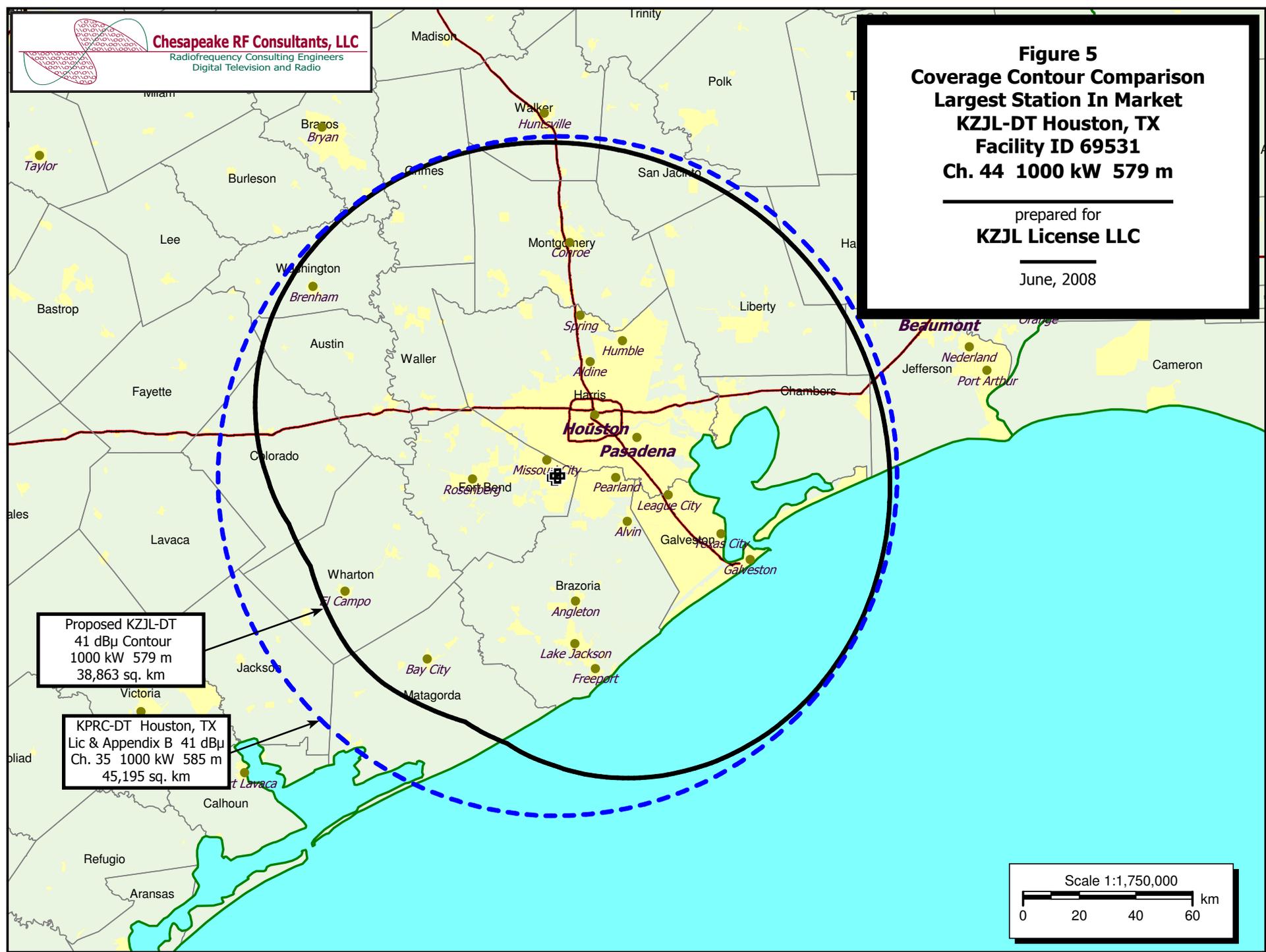




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Figure 5
Coverage Contour Comparison
Largest Station In Market
KZJL-DT Houston, TX
Facility ID 69531
Ch. 44 1000 kW 579 m

prepared for
KZJL License LLC
 June, 2008



Proposed KZJL-DT
 41 dB μ Contour
 1000 kW 579 m
 38,863 sq. km

KPRC-DT Houston, TX
 Lic & Appendix B 41 dB μ
 Ch. 35 1000 kW 585 m
 45,195 sq. km

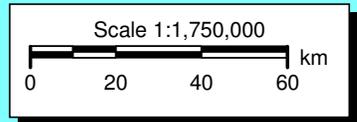


Table 1 KZJL-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 1 of 9)

TW Census data selected 2000
Post Transition Data Base Selected /space/software/cdbs/pt_tvdb.sff

TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 06-08-2008 Time: 16:50:15

Record Selected for Analysis

KZJL-DT USERRECORD-01 HOUSTON TX US
Channel 44 ERP 1000. kW HAAT 578. m RCAMSL 00597 m
Latitude 029-33-44 Longitude 0095-30-35
Status APP Zone 3 Border
Dir Antenna Make usr Model KZJL-DT_C170 Beam tilt N Ref Azimuth 0.
Last update Cutoff date Docket
Comments
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility does not meet maximum height/power limits
Channel 44 ERP = 1000.00 HAAT = 578.

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	900.601	576.3	118.3
45.0	810.000	579.2	117.4
90.0	900.601	578.3	118.4
135.0	873.290	578.7	118.1
180.0	133.225	580.2	101.5
225.0	58.081	579.9	94.5
270.0	133.225	579.1	101.4
315.0	873.290	573.5	117.8

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quiet zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Table 1 KZJL-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 2 of 9)

Proposed station is OK toward AM broadcast stations

Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
44	KZJL-DT	HOUSTON TX	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
44	KSHV	SHREVEPORT LA	376.2	LIC	BLCDDT	-20060215ACP
44	KSHV	SHREVEPORT LA	376.2	PLN	DTVPLN	-DTVPI577
44	KWKT	WACO TX	261.3	PLN	DTVPLN	-DTVPI595
44	KWKT	WACO TX	261.3	CP	BPCDDT	-20080519ABE
45	KXLN-TV	ROSENBERG TX	0.0	CP	BPCDDT	-20080228ABL
45	KXLN-TV	ROSENBERG TX	0.0	PLN	DTVPLN	-DTVPI634

Analysis of Interference to Affected Station 1

Channel	Call	City/State	Application	Ref. No.
44	KSHV	SHREVEPORT LA	BLCDDT	-20060215ACP

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
43	KEJB	EL DORADO AR	165.6	PLN	DTVPLN	-DTVPI525
43	KEJB	EL DORADO AR	165.9	CP	BPCDDT	-20080304ACL
44	KWBF	LITTLE ROCK AR	271.5	CP	BPCDDT	-20080418ABA
44	KWBF	LITTLE ROCK AR	271.5	PLN	DTVPLN	-DTVPI563
44	KZJL	HOUSTON TX	376.2	PLN	DTVPLN	-DTVPI594
44	KWKT	WACO TX	353.4	PLN	DTVPLN	-DTVPI595
44	KWKT	WACO TX	353.4	CP	BPCDDT	-20080519ABE
44	KZJL-DT	HOUSTON TX	376.2	APP	USERRECORD-01	

Total scenarios = 4

Result key: 1
Scenario 1 Affected station 1
Before Analysis

Results for: 44A LA SHREVEPORT BLCDDT 20060215ACP LIC
HAAT 505.0 m, ATV ERP 500.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	890548	30744.3
not affected by terrain losses	889865	30676.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1109	212.9
lost to ATV IX only	1109	212.9
lost to all IX	1109	212.9

Potential Interfering Stations Included in above Scenario 1

43A AR EL DORADO	DTVPLN	DTVPI525	PLN
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Table 1 KZJL-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 3 of 9)

44A AR LITTLE ROCK BPCDT 20030418ABA CP
44A TX HOUSTON DTVPLN DTVP1594 PLN

After Analysis

Results for: 44A LA SHREVEPORT BLCDDT 20060215ACP LIC
HAAT 505.0 m, ATV ERP 500.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	890548	30744.3
not affected by terrain losses	889865	30676.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1109	212.9
lost to ATV IX only	1109	212.9
lost to all IX	1109	212.9

Potential Interfering Stations Included in above Scenario 1

43A AR EL DORADO DTVPLN DTVP1525 PLN
44A AR LITTLE ROCK BPCDT 20030418ABA CP
44A TX HOUSTON USERRECORD01 APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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Analysis of Interference to Affected Station 2

Analysis of current record

Channel	Call	City/State	Application Ref. No.
44	KSHV	SHREVEPORT LA	DTVPLN -DTV1577

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
43	KEJB	EL DORADO AR	165.6	PLN	DTVPLN -DTVP1525
43	KEJB	EL DORADO AR	165.9	CP	BPCDT -20080304ACL
44	KWBF	LITTLE ROCK AR	271.5	CP	BPCDT -20030418ABA
44	KWBF	LITTLE ROCK AR	271.5	PLN	DTVPLN -DTVP1563
44	KZJL	HOUSTON TX	376.2	PLN	DTVPLN -DTVP1594
44	KWKT	WACO TX	353.4	PLN	DTVPLN -DTVP1595
44	KWKT	WACO TX	353.4	CP	BPCDT -20080519ABE
44	KZJL-DT	HOUSTON TX	376.2	APP	USERRECORD-01

Total scenarios = 4

Result key: 5

Scenario 1 Affected station 2

Before Analysis

Results for: 44A LA SHREVEPORT DTVPLN DTVP1577 PLN
HAAT 505.0 m, ATV ERP 500.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	890548	30744.3
not affected by terrain losses	889865	30676.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1109	212.9
lost to ATV IX only	1109	212.9

Table 1 KZJL-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 4 of 9)

lost to all IX 1109 212.9

Potential Interfering Stations Included in above Scenario 1

43A AR EL DORADO DTVPLN DTVP1525 PLN
44A AR LITTLE ROCK BPCDT 20030418ABA CP
44A TX HOUSTON DTVPLN DTVP1594 PLN

After Analysis

Results for: 44A LA SHREVEPORT DTVPLN DTVP1577 PLN
HAAT 505.0 m, ATV ERP 500.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	890548	30744.3
not affected by terrain losses	889865	30676.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	1109	212.9
lost to ATV IX only	1109	212.9
lost to all IX	1109	212.9

Potential Interfering Stations Included in above Scenario 1

43A AR EL DORADO DTVPLN DTVP1525 PLN
44A AR LITTLE ROCK BPCDT 20030418ABA CP
44A TX HOUSTON USERRECORD01 APP

Percent new IX = 0.0000%

Worst case new IX 0.0000% Scenario 1

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application Ref. No.
44	KWKT	WACO TX	DTVPLN -DTVP1595

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
43	KEYE-TV	AUSTIN TX	119.3	LIC	BLCDDT -20031001BGN
43	KEYE-TV	AUSTIN TX	119.3	PLN	DTVPLN -DTVP1556
43	KDTN	DENTON TX	140.9	LIC	BLEDT -20040301AAH
43	KDTN	DENTON TX	140.9	PLN	DTVPLN -DTVP1557
44	KSHV	SHREVEPORT LA	353.4	LIC	BLCDDT -20060215ACP
44	KSHV	SHREVEPORT LA	353.4	PLN	DTVPLN -DTVP1577
44	KZJL	HOUSTON TX	261.3	PLN	DTVPLN -DTVP1594
45	KDTX-TV	DALLAS TX	140.9	CP MOD	BMPFDDT -20030417ABJ
45	KDTX-TV	DALLAS TX	140.9	PLN	DTVPLN -DTVP1633
44	KZJL-DT	HOUSTON TX	261.3	APP	USERRECORD-01

Total scenarios = 8

Result key: 9

Scenario 1 Affected station 3

Before Analysis

Results for: 44A TX WACO DTVPLN DTVP1595 PLN

Table 1 KZJL-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 5 of 9)

HAAT 552.0 m, ATV ERP 159.6 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	827184	23002.6
not affected by terrain losses	827020	22910.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	83095	539.1
lost to ATV IX only	83095	539.1
lost to all IX	83095	539.1

Potential Interfering Stations Included in above Scenario 1

43A TX AUSTIN	BLCDDT	20031001BGN	LIC
43A TX DENTON	BLEDT	20040301AAH	LIC
45A TX DALLAS	BMPCDDT	20030417ABJ	CP
44A TX HOUSTON	DTVPLN	DTVP1594	PLN

After Analysis

Results for: 44A TX WACO DTVPLN DTVP1595 PLN
HAAT 552.0 m, ATV ERP 159.6 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	827184	23002.6
not affected by terrain losses	827020	22910.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	83115	551.1
lost to ATV IX only	83115	551.1
lost to all IX	83115	551.1

Potential Interfering Stations Included in above Scenario 1

43A TX AUSTIN	BLCDDT	20031001BGN	LIC
43A TX DENTON	BLEDT	20040301AAH	LIC
45A TX DALLAS	BMPCDDT	20030417ABJ	CP
44A TX HOUSTON	USERRECORD01	APP	

Percent new IX = 0.0027%

Worst case new IX 0.0027% Scenario 1

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
44	KWKT	WACO TX	BPCDDT -20080519ABE

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
43	KEYE-TV	AUSTIN TX	119.4	LIC	BLCDDT -20031001BGN
43	KEYE-TV	AUSTIN TX	119.4	PLN	DTVPLN -DTVP1556
43	KDTN	DENTON TX	140.9	LIC	BLEDT -20040301AAH
43	KDTN	DENTON TX	140.9	PLN	DTVPLN -DTVP1557
44	KSHV	SHREVEPORT LA	353.4	LIC	BLCDDT -20060215ACP
44	KSHV	SHREVEPORT LA	353.4	PLN	DTVPLN -DTVP1577
44	KZJL	HOUSTON TX	261.3	PLN	DTVPLN -DTVP1594
45	KDTX-TV	DALLAS TX	140.9	CP MOD	BMPCDDT -20030417ABJ
45	KDTX-TV	DALLAS TX	140.9	PLN	DTVPLN -DTVP1633
44	KZJL-DT	HOUSTON TX	261.3	APP	USERRECORD-01

Table 1 KZJL-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 6 of 9)

Total scenarios = 8

Result key: 17
Scenario 1 Affected station 4
Before Analysis

Results for: 44A TX WACO BPCDDT 20080519ABE CP

HAAT 558.0 m, ATV ERP 100.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	755154	22306.8
not affected by terrain losses	754997	22218.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	38809	426.4
lost to ATV IX only	38809	426.4
lost to all IX	38809	426.4

Potential Interfering Stations Included in above Scenario 1

43A TX AUSTIN	BLCDDT	20031001BGN	LIC
43A TX DENTON	BLEDT	20040301AAH	LIC
45A TX DALLAS	BMPCDDT	20030417ABJ	CP
44A TX HOUSTON	DTVPLN	DTVP1594	PLN

After Analysis

Results for: 44A TX WACO BPCDDT 20080519ABE CP

HAAT 558.0 m, ATV ERP 100.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	755154	22306.8
not affected by terrain losses	754997	22218.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	38952	422.4
lost to ATV IX only	38952	422.4
lost to all IX	38952	422.4

Potential Interfering Stations Included in above Scenario 1

43A TX AUSTIN	BLCDDT	20031001BGN	LIC
43A TX DENTON	BLEDT	20040301AAH	LIC
45A TX DALLAS	BMPCDDT	20030417ABJ	CP
44A TX HOUSTON	USERRECORD01	APP	

Percent new IX = 0.0200%

Worst case new IX 0.0200% Scenario 1

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Analysis of Interference to Affected Station 5

Analysis of current record

Channel	Call	City/State	Application Ref. No.
45	KXLN-TV	ROSENBERG TX	BPCDDT -20080228ABL

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
44	KZJL	HOUSTON TX	0.0	PLN	DTVPLN -DTVP1594

Table 1 KZJL-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 7 of 9)

45	WGMB	BATON ROUGE LA	416.4	LIC	BLCDDT	-20060103ACW
45	WGMB	BATON ROUGE LA	416.4	PLN	DTVPLN	-DTV1615
45	KDTX-TV	DALLAS TX	358.9	CP MOD	BMPCDT	-20030417ABJ
45	KDTX-TV	DALLAS TX	358.9	PLN	DTVPLN	-DTV1633
44	KZJL-DT	HOUSTON TX	0.0	APP	USERRECORD-01	

Total scenarios = 1

Result key: 25
Scenario 1 Affected station 5
Before Analysis

Results for: 45A TX ROSENBERG BPCDDT 20080228ABL CP
HAAT 578.0 m, ATV ERP 356.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	4793507	33060.5
not affected by terrain losses	4793236	33040.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0

Potential Interfering Stations Included in above Scenario 1

After Analysis

Results for: 45A TX ROSENBERG BPCDDT 20080228ABL CP
HAAT 578.0 m, ATV ERP 356.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	4793507	33060.5
not affected by terrain losses	4793236	33040.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	207	4.0
lost to ATV IX only	207	4.0
lost to all IX	207	4.0

Potential Interfering Stations Included in above Scenario 1

44A TX HOUSTON USERRECORD01 APP

Percent new IX = 0.0043%

Worst case new IX 0.0043% Scenario 1

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Analysis of Interference to Affected Station 6

Analysis of current record

Channel	Call	City/State	Application Ref. No.
45	KXLN-TV	ROSENBERG TX	DTVPLN -DTV1634

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
44	KZJL	HOUSTON TX	0.0	PLN	DTVPLN -DTV1594
45	WGMB	BATON ROUGE LA	416.4	LIC	BLCDDT -20060103ACW
45	WGMB	BATON ROUGE LA	416.4	PLN	DTVPLN -DTV1615

Table 1 KZJL-DT OET Bulletin 69 Interference Study
(worst-case scenarios shown page 8 of 9)

45	KDTX-TV	DALLAS TX	358.9	CP MOD	BMPCDT	-20030417ABJ
45	KDTX-TV	DALLAS TX	358.9	PLN	DTVPLN	-DTV1633
44	KZJL-DT	HOUSTON TX	0.0	APP	USERRECORD-01	

Total scenarios = 1

Result key: 26
Scenario 1 Affected station 6
Before Analysis

Results for: 45A TX ROSENBERG DTVPLN DTV1634 PLN
HAAT 578.0 m, ATV ERP 356.5 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	4793593	33076.7
not affected by terrain losses	4793322	33056.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0

Potential Interfering Stations Included in above Scenario 1

After Analysis

Results for: 45A TX ROSENBERG DTVPLN DTV1634 PLN
HAAT 578.0 m, ATV ERP 356.5 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	4793593	33076.7
not affected by terrain losses	4793322	33056.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	207	4.0
lost to ATV IX only	207	4.0
lost to all IX	207	4.0

Potential Interfering Stations Included in above Scenario 1

44A TX HOUSTON USERRECORD01 APP

Percent new IX = 0.0043%

Worst case new IX 0.0043% Scenario 1

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Analysis of Interference to Affected Station 7

Analysis of current record

Channel	Call	City/State	Application Ref. No.
44	KZJL-DT	HOUSTON TX	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
44	KSHV	SHREVEPORT LA	376.2	LIC	BLCDDT -20060215ACP
44	KSHV	SHREVEPORT LA	376.2	PLN	DTVPLN -DTV1577
44	KWKT	WACO TX	261.3	PLN	DTVPLN -DTV1595
44	KWKT	WACO TX	261.3	CP	BPCDDT -20080519ABE
45	KXLN-TV	ROSENBERG TX	0.0	CP	BPCDDT -20080228ABL

Table 1 KZJL-DT OET Bulletin 69 Interference Study

(worst-case scenarios shown page 9 of 9)

45 KXLN-TV ROSENBERG TX 0.0 PLN DTVPLN -DTVP1634

Total scenarios = 2

Result key: 27

Scenario 1 Affected station 7
Before Analysis

Results for: 44A TX HOUSTON USERRECORD01 APP

HAAT 578.0 m, ATV ERP 1000.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	4833385	38061.0
not affected by terrain losses	4833329	38004.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	312	36.4
lost to ATV IX only	312	36.4
lost to all IX	312	36.4

Potential Interfering Stations Included in above Scenario 1

44A TX WACO DTVPLN DTVP1595 PLN

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FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

SECTION III-D - DTV Engineering

Complete Questions 1-5, and provide all data and information for the proposed facility, as requested in Technical Specifications, Items 1-13.

Pre-Transition Certification Checklist: An application concerning a pre-transition channel must complete questions 1(a)-(c), and 2-5. A correct answer of "Yes" to all of the questions will ensure an expeditious grant of a construction permit application to change pre-transition facilities. However, if the proposed facility is located within the Canadian or Mexican borders, coordination of the proposal under the appropriate treaties may be required prior to grant of the application. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

Post-Transition Expedited Processing. An application concerning a post-transition channel must complete questions 1(a), (d)-(e), and 2-5. A station applying for a construction permit to build its post-transition channel will receive expedited processing if its application (1) does not seek to expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B"); (2) specifies facilities that match or closely approximate those defined in the new DTV Table Appendix B facilities; and (3) is filed within 45 days of the effective date of Section 73.616 of the rules adopted in the Report and Order in the Third DTV Periodic Review proceeding, MB Docket No. 07-91.

1. The proposed DTV facility complies with 47 C.F.R. Section 73.622 in the following respects:	
(a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622.	<input checked="" type="radio"/> Yes <input type="radio"/> No
(b) It will operate a pre-transition facility from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input type="radio"/> No
(c) It will operate a pre-transition facility with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622.	<input type="radio"/> Yes <input type="radio"/> No
(d) It will operate at post-transition facilities that do not expand the noise-limited service contour in any direction beyond that established by Appendix B of the Seventh Report and Order in MB Docket No. 87-268 establishing the new DTV Table of Allotments in 47 C.F.R. § 73.622(i) ("new DTV Table Appendix B").	<input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> N/A
(e) It will operate at post-transition facilities that match or reduce by no more than five percent with respect to predicted population from those defined in the new DTV Table Appendix B.	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. Applicant must submit the Exhibit called for in Item 13.	<input checked="" type="radio"/> Yes <input type="radio"/> No
3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community.	<input checked="" type="radio"/> Yes <input type="radio"/> No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable.	<input checked="" type="radio"/> Yes <input type="radio"/> No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require registration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7.	<input checked="" type="radio"/> Yes <input type="radio"/> No

SECTION III-D - DTV Engineering

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1.	Channel Number: DTV 44 Analog TV, if any 61
2.	Zone: <input type="radio"/> I <input type="radio"/> II <input checked="" type="radio"/> III
3.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 29 Minutes 33 Seconds 44 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 95 Minutes 30 Seconds 35 <input checked="" type="radio"/> West <input type="radio"/> East
4.	Antenna Structure Registration Number: 1059622 <input type="checkbox"/> Not Applicable <input type="checkbox"/> Notification filed with FAA
5.	Antenna Location Site Elevation Above Mean Sea Level: 22.8 meters
6.	Overall Tower Height Above Ground Level: 601.6 meters
7.	Height of Radiation Center Above Ground Level: 574.6 meters
8.	Height of Radiation Center Above Average Terrain : 578.6 meters

9. Maximum Effective Radiated Power (average power): 1000 kW

10. Antenna Specifications:

a. Manufacturer ERI Model ATW22H4-ESC170-44H

b. Electrical Beam Tilt:
1 degrees Not Applicable

c. Mechanical Beam Tilt:
degrees toward azimuth
degrees True Not Applicable
Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). [Exhibit 42]

d. Polarization:
 Horizontal Circular Elliptical

e. Directional Antenna Relative Field Values: Not applicable (Nondirectional)

[For a composite directional (not off-the-shelf) antenna, press the following button to fill in the relative field values subform.]
[Relative Field Values]

10e. Directional Antenna Relative Field Values

[Fill in this subform for a composite directional (not off-the-shelf) antenna, only.]

e. Directional Antenna Relative Field Values:
Rotation (Degrees): No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	0.949	10	0.926	20	0.91	30	0.902	40	0.9	50	0.9
60	0.902	70	0.91	80	0.926	90	0.949	100	0.976	110	0.996
120	0.997	130	0.968	140	0.901	150	0.797	160	0.663	170	0.512
180	0.365	190	0.251	200	0.204	210	0.219	220	0.241	230	0.241
240	0.219	250	0.204	260	0.251	270	0.365	280	0.512	290	0.663
300	0.797	310	0.901	320	0.968	330	0.997	340	0.996	350	0.976
Additional Azimuths		115	1	335	1						

[Relative Field Polar Plot](#)

If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. **Exhibit required.** [Exhibit 43]

11. Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616? Yes No [Exhibit 44]

If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.

12. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** item 3 is answered "No.") [Exhibit 45]

13. **Environmental Protection Act. Submit in an Exhibit** the following: [Exhibit 46]
If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site.

By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R Section 1.1311.

PREPARERS CERTIFICATION ON SECTION III MUST BE COMPLETED AND SIGNED.

SECTION III - PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name JOSEPH M. DAVIS, P.E.	Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature	Date 6/12/2008	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 11993 KAHNS ROAD		
City MANASSAS	State or Country (if foreign address) VA	Zip Code 20112 -
Telephone Number (include area code) 7036509600	E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM	

WILLFUL FALSE STATEMENTS ON THIS FORM ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. CODE, TITLE 18, SECTION 1001), AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. CODE, TITLE 47, SECTION 312(a)(1)), AND/OR FORFEITURE (U.S. CODE, TITLE 47, SECTION 503).

Any specified rotation has already been applied to the plotted pattern.
Field strength values shown on a rotated pattern may differ from the listed values because intermediate azimuths are interpolated between entered azimuths.

